



nT-A3800 NanoPC

User's Manual

Trademark:

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Version:

User's Manual V1.1 for nT-A3800 NanoPC.

Symbol description:



Caution : refers to important information that can help you to use NanoPC better, and tells you how to avoid problems.



WEEE:

The use of this symbol indicates that this product may not be treated as household waste. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased this product.

CAUTION
RISK OF EXPLOSION IF BATTERY IS REPLACED
BY AN INCORRECT TYPE
DISPOSE OF USED BATTERIES ACCORDING
TO THE INSTRUCTIONS

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All images are for reference only, please refer to the physical product for specific features.

Safety Notice :



Before using this product, please read the below safety notice carefully, this will help to extend the product's lifecycle, and work normally.

- When NanoPC is working, please make sure its ventilation system is working.
- The power adapter is dissipating heat during normal use, please be sure not to cover it and keep it away from your body to prevent discomfort or injury by heat exposure.
- Please use the power adapter that comes with the product's package, wrong power adapter may damage your device.
- Make sure all the peripherals are properly connected before using NanoPC.
- This product should only be used in an environment with ambient temperatures between 0°C and 40°C.
- To reduce the risk of fire, use only No. 26 AWG or larger UL listed or CSA certified telecommunication line cord.
- Always shut down the computer before installing or uninstalling the peripheral which does not support hot plug.
- Disconnect all peripherals before servicing or disassembling this equipment.
- Please do not disassemble this product by yourself, any disassembly not approved by the original manufacturer may result in malfunction, and void warranty.
- Risk of explosion if battery is replaced by an incorrect type, please dispose of used batteries according to the instructions.



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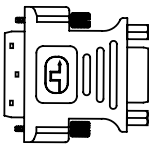
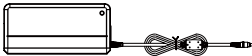
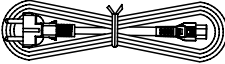

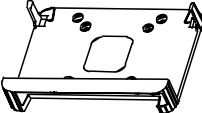
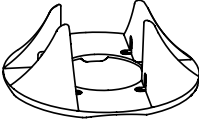

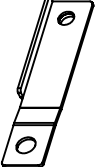

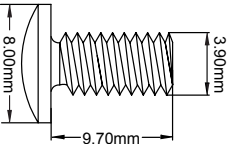
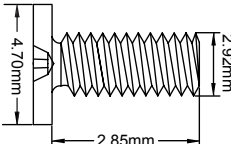
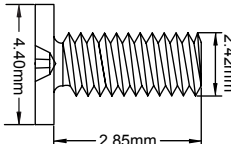
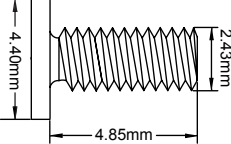
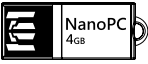
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Accessory List

Thanks for choosing our products. Please check the accessories listed below. If there is anything broken or lost, please contact with your distributors as soon as possible.

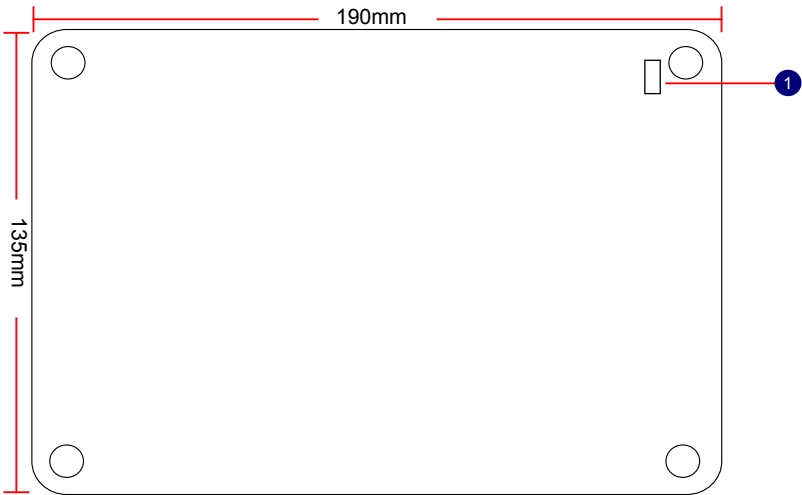
		
DVI to VGA Adapter	Power Adapter	Power Cord
		
Magnet Rubber Foot	Vesa Mount	Seatbase
		
Opening Tool	Mini PCIe Half Card Support	Screw Cover
		
Screw for VESA Mounting (M8, 0X9.7mm) (4X)	Screw for HDD Support Bracket (M:4.7X2.85mm) (4X)	Screw for Half MiniPCIe Card (M:4.4X2.85mm) (1X)
		
Screw for Half MiniPCIe Half Card Support Bracket (M:4.4X4.85mm) (1X)	USB Flash Disk	



This chapter introduces NanoPC's outlook :

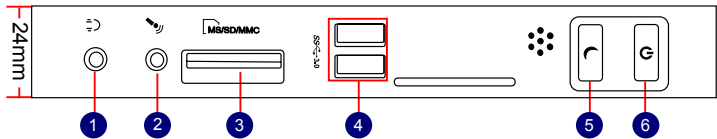
- Top View
- Front Side View
- Back Side View
- Bottom View

1-1 Top View



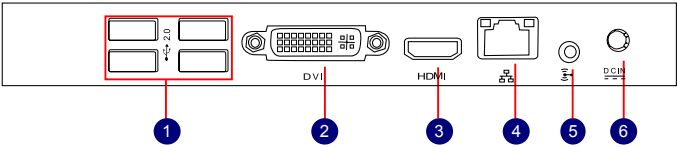
No.	Name	Description
1	Kensington Lock	Attach a Kensington security system or a compatible lock to secure your NanoPC

1-2 Front Side View



No.	Name	Description
1	Headphone Port	Connects to a headphone
2	Microphone In and SPDIF In Port	Connects to a microphone or playback devices with optical connectors(3.5mm jack) SPDIF function requires additional adapter and adapter cable.
3	Multi-Function Card Reader	Support SD/SDHC/MS/MS Pro/MMC memory cards
4	USB 3.0 Ports	Connect to USB devices Caution:Before using it, you need to install the “AS-Media USB3.0 driver” in the Driver CD.
5	Suspend Button	Enter suspend mode in operating system
6	Power Button with Integrated LED Indicator	Turning the power on/off, Indicates system states

1-3 Back Side View



No.	Name	Description
1	USB 2.0 Ports	Connects to USB devices
2	Display Output Port	Connects to display device
3	HDMI Port	Connects to HDMI audio and video
4	Network Port	Standard RJ-45 network port
5	Line Out and SPDIF Out Port	Connects to powered analog speakers or recording devices with optical connectors(3.5mm jack) SPDIF function requires additional adapter and adapter cable.
6	Power Input Port	Connects to the power adapter

1-4 Bottom View



No.	Name	Description
1	Sheet Metal	NETDVD(optional accessory) or Magnet-Metal-Feet can magnetize them to seat firmly



There are four Magnet-Metal-Feet in the package. Just align them to the sheet metal on the bottom, then they can magnetize the NanoPC easily. The feet can seat and protect NanoPC when it is placed on the tabletop.



2

In this chapter, the placement and the connection of some necessary peripherals will be introduced.

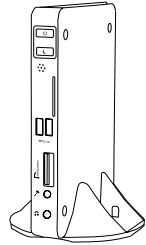
This chapter includes the following information:

- Placement of NanoPC
- Connection of NanoPC

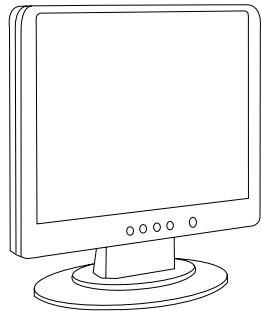
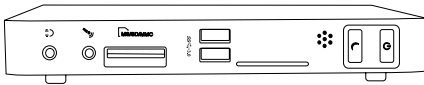
2-1 Placement of NanoPC

1. On the Desk

1.1. You can install your NanoPC in the Seatbase like the right image.



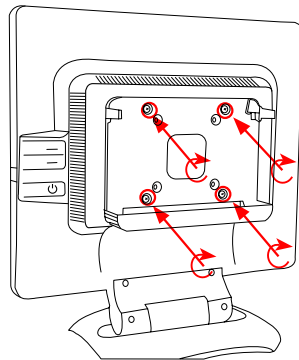
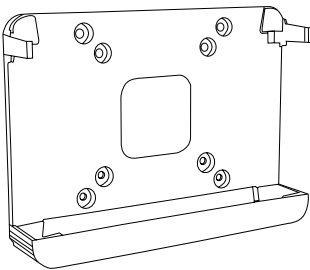
1.2. If there is enough space on your desk, you can simply put your NanoPC on the tabletop as shown below.



2. On the Display Back

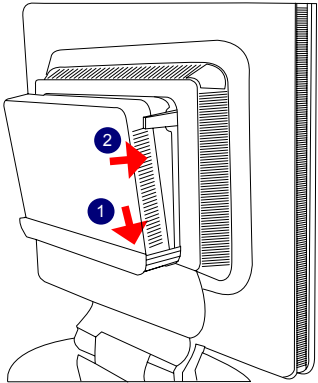
This is the best space-saving way.

2.1. Use four screws to fasten the Vesa Mount onto the display back.



To install this bracket, your display must follow VESA75/VESA100 standard. The two groups of holes on your display have different space between, and they help you easily fasten the bracket onto your display.

2.2. Fit the NanoPC into the Vesa Mount with power button locating at the top for easy touch.

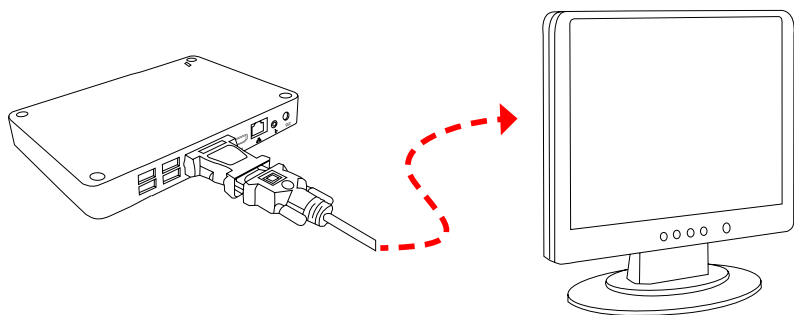


Lift up the NanoPC straightly to take it out.

2-2 Connection of NanoPC

1. Connect the Monitor

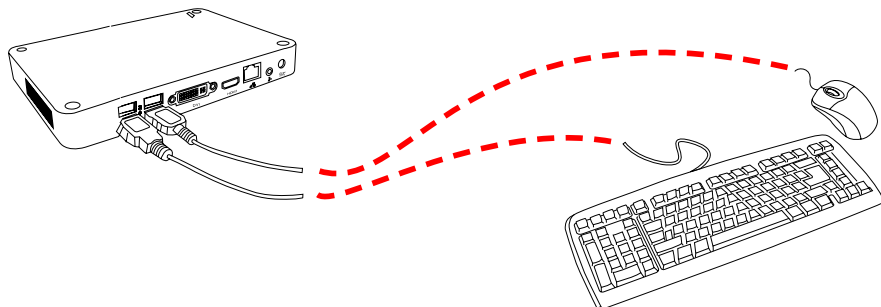
Connect a monitor to the NanoPC through DVI connector.



- Please use the customized DVI-VGA Adapter that comes with your NanoPC to get a higher resolution on your VGA display.
- You could have access to display adjustment for some HDTV or HD display connected via HDMI port by using the scaling function in "AMD VISION Engine Center", a utility, which is available after the installation of AMD Chipset Driver. And you can initiate this utility by first right-clicking on Desktop and selecting it, then further choosing "Scaling Options(Digital Flat-Panel)" in "My Digital Flat-Panels".

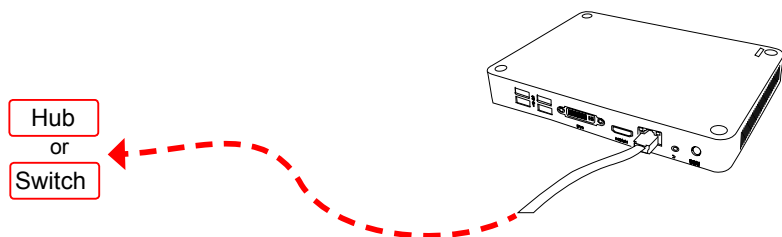
2. Connect the USB Devices

Connect USB devices to the USB ports of the NanoPC, for example, mouse and keyboard.



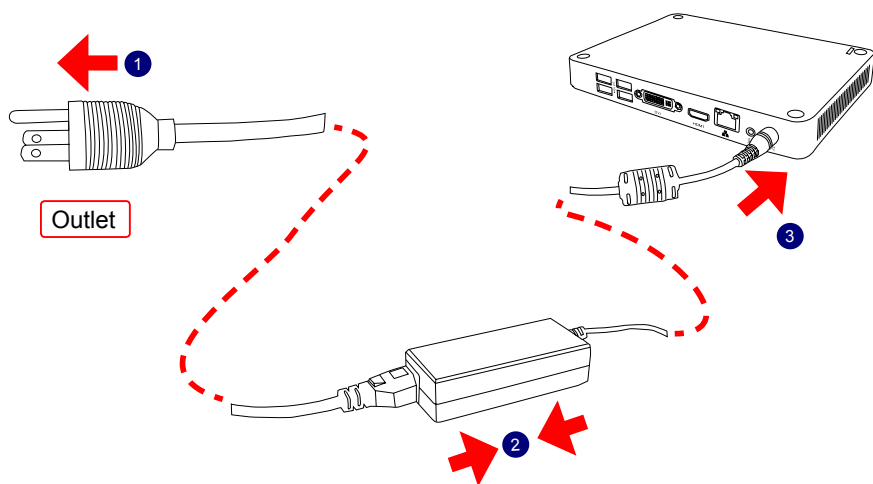
3. Connect the Network Cable

Connect LAN cable to the RJ-45 port, with the other end connected to a hub or switch.



4. Connect the Power Cord

Connect the power adapter to the power input port of the NanoPC, and push the power button to start it.



The power adapter is dissipating heat during normal use, please make sure not to cover it and keep it away from your body to prevent discomfort or injury from heat exposure.

3

This chapter tells how to change system settings through the BIOS Setup menus. Detailed descriptions of the BIOS parameters are also provided.

You have to run the Setup Program when the following cases occur :

1. An error message appears on the screen during the system Power On Self Test (POST) process.
2. You want to change the default Item settings.

This chapter includes the following information:

- Enter BIOS Setup
- Main
- Advanced
- Boot
- Security
- Save & Exit



Since BIOS could be updated some other times, the BIOS information described in this manual is for reference only. We do not guarantee the content of this manual will remain consistent with the newly released BIOS at any given time in the future. Please visit our website for updated manual if it is available.

Enter BIOS Setup

The BIOS is the communication bridge between hardware and software, correctly setting up the BIOS parameters is critical to maintain optimal system performance. Power on the computer, when the message "**Press or <F2> to enter setup, Press <F11> to enter boot menu**" appears at the bottom of the screen, you can press or <F2> key to enter Setup.



We do not suggest that you change the default values in the BIOS Setup, and we shall not be responsible for any damage which resulted from the change you made.

Use the arrow right/left keys to select a specific function and go to the submenu. Each function is explained below:

Main

It displays the basic system configuration, such as CPU Name, memory size, system date, time and so on. They all can be viewed or set up through this menu.

Advanced

The advanced system features can be set up through this menu.

Boot

Boot features can be set up through this menu. You can set the boot device priority and enable "Quiet Boot" feature here.

Security

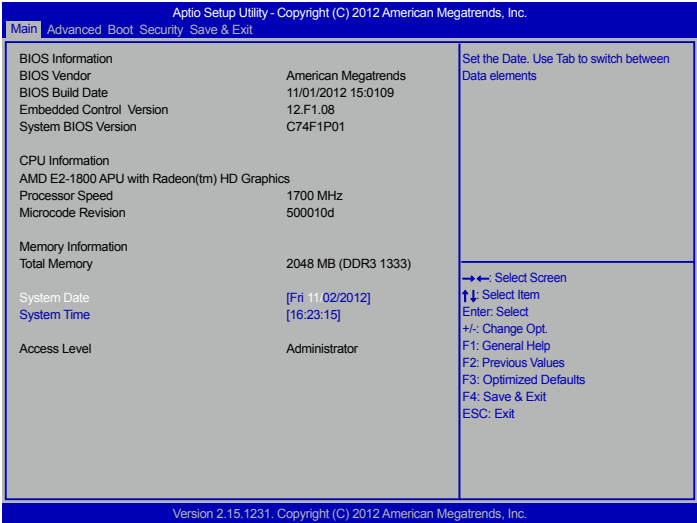
The Administrator/User password can be set up through this menu to prevent unauthorized use of your computer. If you set a password, the system will ask you to key in correct password before boot or access to Setup.

Save&Exit

The optimal performance settings can be loaded through this menu. However, it may offer better performance in some ways (such as less I/O cards, less memory ...etc.), still, it may cause problem if you have more memory or I/O cards installed. It means, if your system loading is heavy, set to optimal default may sometimes come out an unstable system. What you need now is to adjust BIOS setting one by one, trial and error, to find out the best setting for your current system. You also can save or discard the changes and exit BIOS setup here.

Main

The BIOS Setup is accessed by pressing the or <F2> button after the Power-On Self-Test (POST) memory test begins and before the operating system boot begins. Once you enter the BIOS Setup Utility, the Main Menu will appear on the screen. The Main Menu provides System Overview information and allows you to set the System Time and Date. Use the “←” and “→” cursor keys to navigate between menu screens.



► System Date

<weekday><month><date> <year> format.

Day—weekday from Sun. to Sat., this message is automatically displayed by BIOS (Read Only).

Month—month from 1 to 12.

Date—date from 1 to 31.

Year—year, set up by users.

Use [ENTER], [TAB] to select a field. Use [+] or [-] to input the value.

► System Time

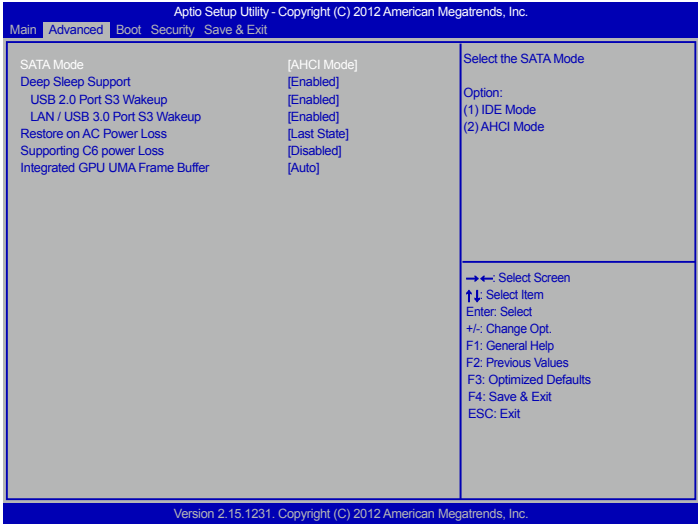
This item allows you to configure the desired time. Use [ENTER], [TAB] to select a field. Use [+] or [-] to input the value.

The three fields of the setting are <hour> : <minute> : <second> respectively.

► Access Level

It displays your current access level. If you enter system with a user password, it will display “User”. If no password is set or you enter system with administrator password, this item will display “Administrator”.

Advanced



► SATA Mode

This item is used to set the operating mode of your SATA ports. Setting options: [IDE Mode]; [AHCI Mode].

[IDE Mode] - This configures the SATA ports to support IDE mode.

[AHCI Mode] - The Advanced Host Controller Interface (AHCI) specification describes the register level interface for a Host Controller for Serial ATA. The specification includes a description of the hardware/software interface between system software and the host controller hardware. AHCI provides more advanced features including SATA features, but some SATA drives may not support AHCI, unless they are labeled with AHCI support in its specification.

If your motherboard supporting AHCI, and you have a SATA device, which also supports AHCI, then you can select IDE option to have fair performance (only PATA, SATA level), or you can select AHCI to get its best performance.



AHCI mode is not available under Windows XP, please select IDE mode.

► Deep Sleep Support

This item is used to enable or disable Deep Sleep Support function. When entering deep sleep mode system (S4/S5) only can wake up from power button.

► USB 2.0 Port S3 Wakeup

This item is used to enable or disable USB 2.0 Port S3 Wakeup Function.

► LAN / USB 3.0 Port S3 Wakeup

This item is used to enable or disable Onboard LAN / USB 3.0 Port S4 Wakeup Function.

► **Restore on AC Power Loss**

This item is used to set which state the PC will take with when it resumes after an AC power loss.

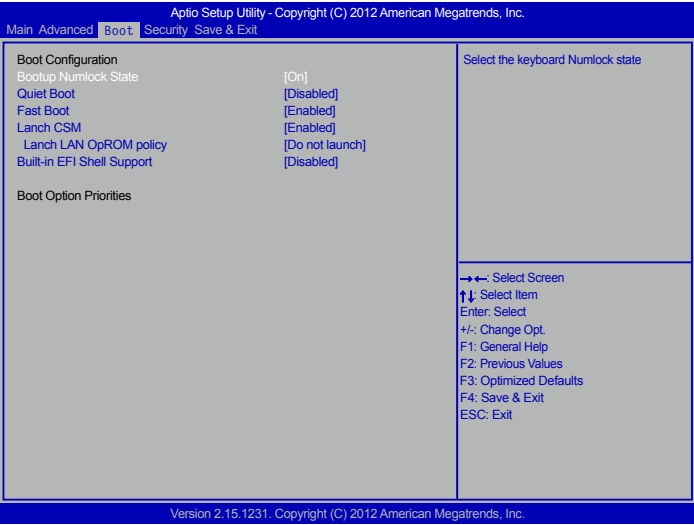
► **Supporting C6 power Loss**

This item is used to enable or disable C6 power state, which is featured in Fusion processors.

► **Integrated GPU UMA Frame Buffer**

This item is used to set Integrate Graphics UMA Frame Buffer Size.

Boot



3

► Bootup Numlock State

This item is used to select the keyboard numlock state. The default setting is [On].

► Quiet Boot

This item is used to enable or disable the quiet boot.

[Disabled] : Displays the normal POST messages.

[Enabled] : Displays OEM customer logo instead of POST messages.

► Fast Boot

This item is used to enable or disable boot with initialization of a minimal set of devices required to launch active boot option. This has no effect for BBS boot options.

► Launch CSM

This item controls if CSM will be launched.

► Launch LAN OpROM policy

This item controls the execution of UEFI and Legacy PXE OpROM.

► Built-in EFI Shell Support

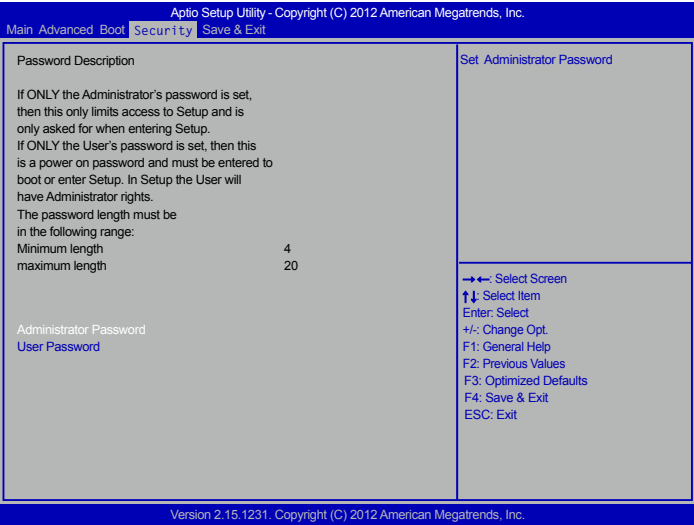
This item is used to control whether the “Built-in EFI Shell” appears in the Boot Option.

You can set the “Built-in EFI Shell” option boot priority in “Boot Option Priorities” listing when this item is set to [Enabled].

► Boot Option Priorities

These items are used to set the system boot order.

Security



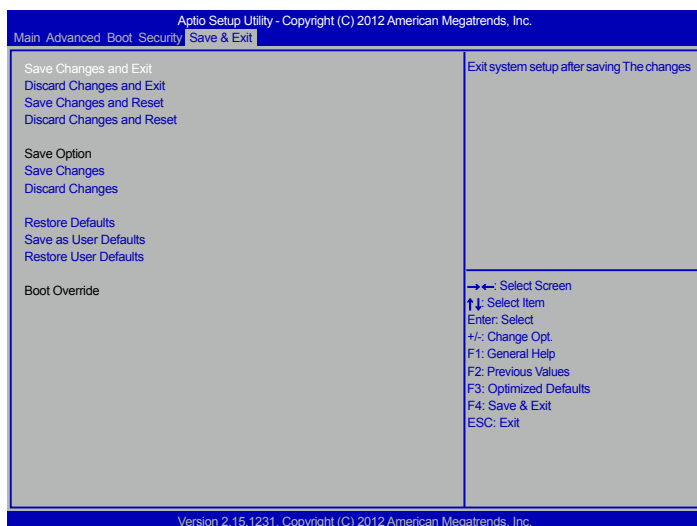
► **Administrator Password**

This item is used to install or change administrator password. After you input administrator password, it then will ask you to confirm the password.

► **User Password**

This item is used to install or change user password.

Save & Exit



► Save Changes and Exit

If you select this option and press <Enter>, a message will be displayed in the screen. Select [Yes] to save your changes and exit, select [No] or <ESC> to return to the menu.

► Discard Changes and Exit

If you select this option and press <Enter>, a message will be displayed in the screen. Select [Yes] to exit setup utility without saving your modifications, select [No] or <ESC> to return to the menu.

► Save Changes and Reset

If you select this option and press <Enter>, a message will be displayed in the screen. Select [Yes] to save your changes and reset computer, select [No] or <ESC> to return to the menu.

► Discard Changes and Reset

If you select this option and press <Enter>, a message will be displayed in the screen. Select [Yes] to exit setup utility and reset computer without saving your modifications, select [No] or <ESC> to return to the menu.

► Save Changes

If you select this option and press <Enter>, a message will be displayed in the center of the screen. Select [Yes] to save your changes, select [No] or <ESC> to return to the menu.

► Discard Changes

If you select this option and press <Enter>, a message will be displayed in the center of the screen. Select [Yes] to discard your modifications, select [No] or <ESC> to return to the menu.

► Restore Defaults

Optimal defaults are the best settings of this motherboard.

Restore/Load the Optimal defaults values for all the setup options.

Select this option and press Enter, it will pop out a dialogue box to let you load the defaults.

Select <Yes> and then press <Enter> to load the defaults. Select <No> and press <Enter>, it will not load.

By this default, BIOS have set the optimal performance parameters of system to improve the performances of system components. But if the optimal performance parameters to be set cannot be supported by your hardware devices (for example, too many expansion cards were installed), the system might fail to work.

► **Save as User Defaults**

If you select this option and press <Enter>, a message will be displayed in the screen.

Select [Yes] to save the changes done so far as user defaults, select [No] or <ESC> to return to the menu.

► **Restore User Defaults**

If you select this option and press <Enter>, a message will be displayed in the screen.

Select [Yes] to restore/load the user defaults to all the setup options, select [No] or <ESC> to return to the menu.

► **Boot Override**

BIOS auto detect the presence of connected devices, select the device you want to boot from and press <Enter>, then the system will directly boot from the selected devices.



4

This chapter introduces the Windows installation :

- Install Windows 7/8
- Install Drivers in Windows 7/8

Make sure you have these ready :

1. NETDVD. (It is an optional accessory. If there is no NETDVD in this package, you need other purchase an external USB DVD-ROM drive.)
2. NanoPC USB Flash Disk (In this package)
3. Windows 7/8 Install CD. (Other purchase)

Before we continue :

- Your NanoPC power is off.
- Connect the NETDVD or USB DVD-ROM drive to one USB port of NanoPC and power it on.



- WiFi card with this product doesn't support Vista operating system.
- Windows 7(32-bit/64-bit) and Windows 8(32-bit) can't be installed when "Launch CSM" is set to "Disabled" in the BIOS setup.

4-1 Install Windows 7/8

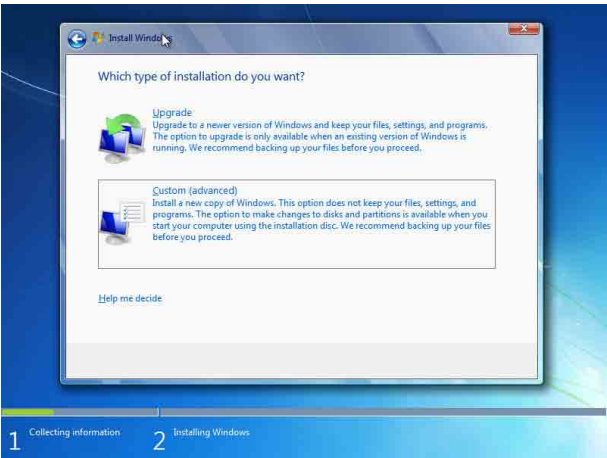
1. Connect the Windows 7/8 Install USB Disk (or USB DVD-ROM drive) to one USB port of NanoPC.
2. Push power on button to turn on your computer.
3. Put the Windows 7/8 Install CD into the NETDVD or USB DVD-ROM drive if you use the NET DVD or USB DVD-ROM drive.
4. Computer will choose the boot device by BIOS default and start loading the files for installing the OS.



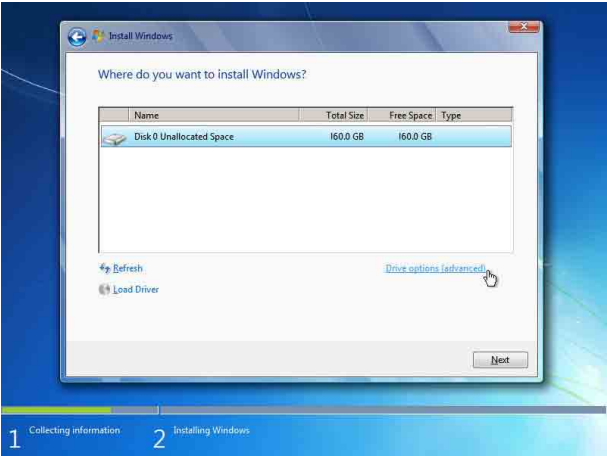
Please press or <F2> key to enter BIOS Setup if you want to change the first boot device for installing the OS.

5. When the installation windows popup, Click "Next" to continue and click "Install now" button to start the setup.
6. When the license terms appear, choose accept and click "Next" to continue.

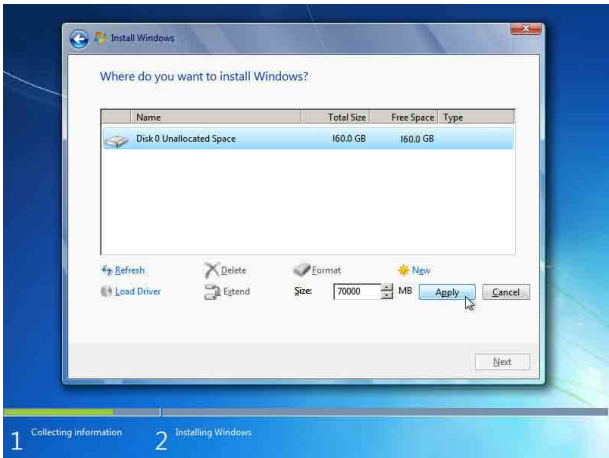
7. It will then ask you to select the installation type. Click “Custom (advanced)” to install a new copy of Windows.



8. The setup will then display the hard disk partitions (160GB, in this example) of your system. If there were other systems (such as Linux) installed previously, you need select them and click “Drive options (advanced)” to delete them. When all partitions are clean, setup will display the biggest size of your hard drive.

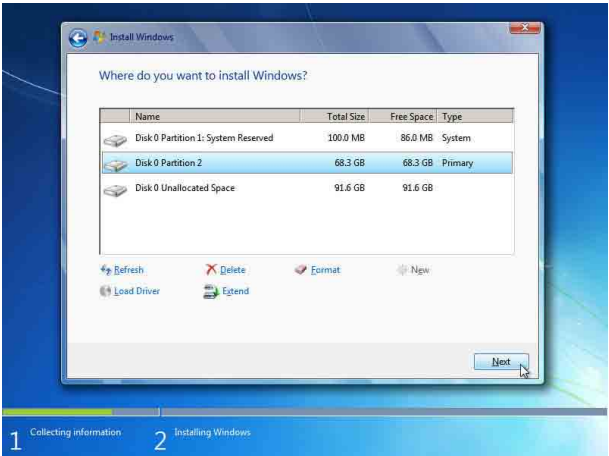


9. In the hard disk size screen, you can click the “new” button to create partitions as you need. In this example we are creating a 70GB partition to install Windows. Make your modifications

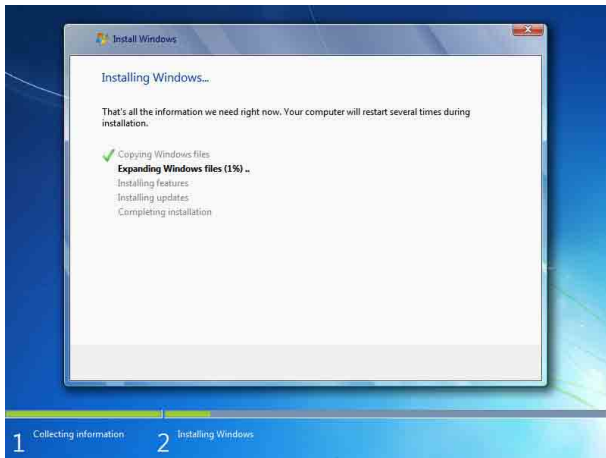


and click “Apply”.

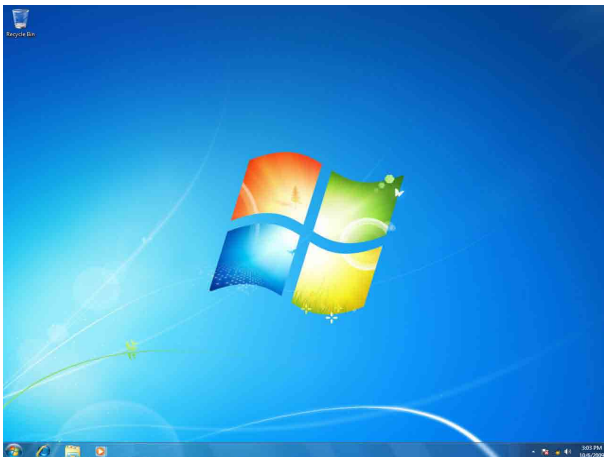
To ensure that all Windows features work correctly, Windows might create additional partitions for system files. So you will see a 100MB partition reserved by system after you create a partition. Select the 70GB partition and click “Next” to continue.



10. The setup program will then start to install Windows 7/8 on your hard disk. During the installation, your computer will restart several times.



11. When the installation is complete, setup will prepare your computer for it's first use. You can then follow the steps to select system settings, create an account, set a password...etc, until the whole process is complete.



4-2 Install Drivers in Windows 7/8

1. When the Windows 7/8 is completely installed, you have to install the necessary drivers before using the NanoPC. Connet the USB Flash Disk.(USB Flash Disk in this package)
2. Waiting for a few seconds, the main menu will be displayed on the screen.



3. Use these options to install all the drivers for your system. You must click "AMD Chipset Driver" to install it first. After that, you can click "One Click Setup" and then choose the items you want to install, or you can click on each individual driver to install it manually.
4. After all the drivers are installed, you need to restart your NanoPC, then you can start using it.



This chapter introduces the following information:

- FOX WinFlash

FOX WinFlash

FOX WinFlash is a useful utility to backup and update your system BIOS.

Supporting Operating Systems :

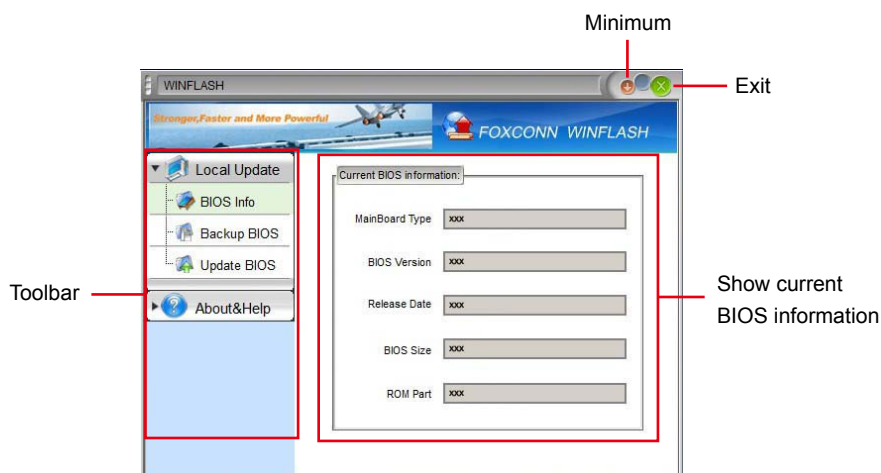
- Windows XP (32-bit/64-bit)
- Windows 7 (32-bit/64-bit)
- Windows 8 (32-bit/64-bit)

Using FOX WinFlash:

1. Local Update

1-1 Local Update - BIOS Information

This page lets you know your system BIOS information.



Note: BIOS Size 16Mb = 16M bit = 2M Byte

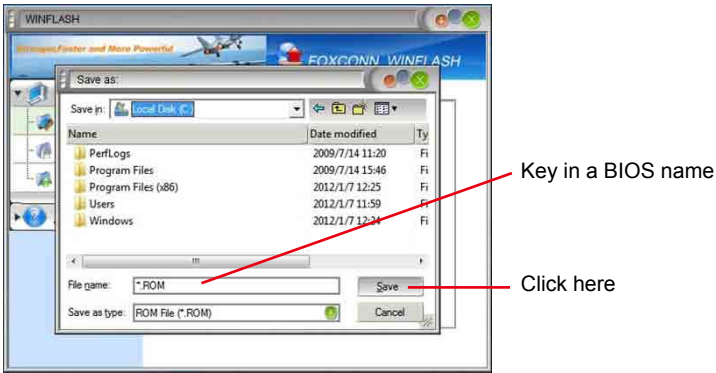
BIOS Size 32Mb = 32M bit = 4M Byte

Please refer to the physical motherboard for detail.

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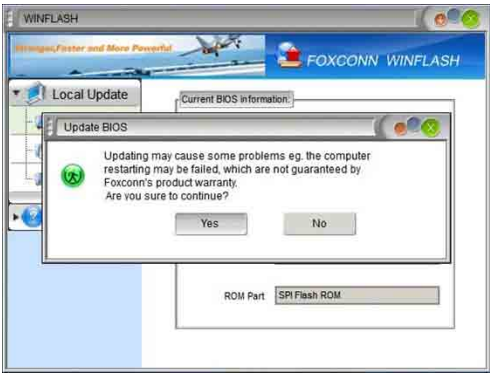
1-2 Local Update - Backup

This page can back up your system BIOS. You can click “Backup BIOS”, and key in a file name, then click “Save” to finish the backup operation. The extension of this backup file is “.ROM” for AMI BIOS. Make sure you can remember the file name together with the directory which it is stored, prevented that you may need them to recover your BIOS later.



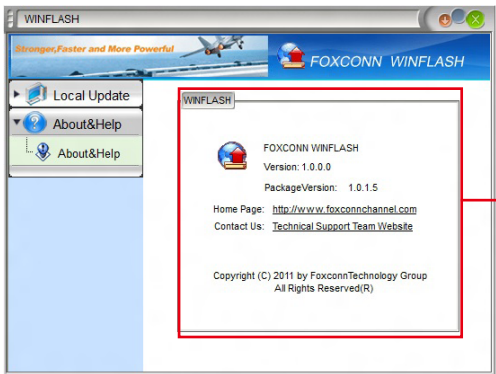
1-3 Local Update - Update

This page helps you to update your BIOS from a local file. After click “Update BIOS”, An alert message will be displayed to ensure if you really want to continue, click “Yes” to confirm. A setup wizard will guide you to load a local BIOS file to finish the operation. You must remember from which directory to load your new BIOS file (with an extension of “.ROM” for AMI BIOS) before the setup wizard starts.



2. About & Help

This page shows some information about FOX WinFlash.



Show information about FOX WinFlash

Statement:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning:**FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

Caution:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

RF exposure warning:

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

Warning statement for Europe:

Also, put in the manual which directive to fulfil and also which countries to sell the product.

Example of a text to tell which directive has been fulfilled:

Hereby, Foxconn, declares that this nT-A3000 series is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC."